

WHAT IS CLAIMED IS:

1. An error recovery method for use with a communication system having first and second nodes, each of said nodes having a receiver and a sender, the sender of the first node being connected to the receiver of the second node by a first cable, and the sender of the second node being connected to the receiver of the first node by a second cable, the method comprising the steps:

after one of the nodes detects an error, both of the nodes entering the same defined state, including the steps of:

the receiver of the first node entering an error state, staying in the error state for a defined period of time T, and, after said defined period of time T, entering a wait state, and

the sender of the first node sending to the receiver of the second node an error message for a defined period of time  $T_e$ , and after the defined period of time  $T_e$ , entering an idle state.

2. A method according to Claim 1, wherein the step of the sender of the first node entering the idle state includes the step of:

the sender of the first node sending an idle signal to the receiver of the second node for a period of time  $T_i$ .

3. A method according to Claim 2, wherein  $T_i$  is greater than  $T_e$ .

4. A method according to Claim 1, wherein said error includes said one of the nodes receiving the error message from the other of the nodes.

5. A method according to Claim 1, wherein in said same defined state, the receivers of both nodes are in the wait state, and the senders of both nodes are in the idle state.

6. A method according to Claim 5, further comprising the step of, after both nodes are in said same defined state, the senders of both nodes entering a resend state.

7. An error recovery system for use with a communication system having first and second nodes, each of said nodes having a receiver and a sender, the sender of the first node being connected to the receiver of the second node by a first cable, and the sender of the second node being connected to the receiver of the first node by a second cable, the error recovery system comprising:

means for putting both nodes, after one of the nodes detects an error, into the same defined state, including

means for putting the receiver of the first node into an error state, keeping the receiver of the first node in the error state for a defined period of time T, and, after said defined period of time T, putting the receiver of the first node into a wait state, and

means for sending from the sender of the first node to the receiver of the second node an error message for a defined period of time  $T_e$ , and for putting the sender of the first node into an idle state after the defined period of time  $T_e$ .

8. A system according to Claim 7, wherein when the sender of the first node is in the idle state, the sender of the first node sends an idle signal to the receiver of the second node for a period of time  $T_i$ .

9. A system according to Claim 8, wherein  $T_i$  is greater than  $T_e$ .

10. A system according to Claim 7, wherein said error is detected when one of the nodes receives the error message from the other of the nodes.

11. A system according to Claim 7, wherein in said same defined state, the receivers of both nodes are in the wait state, and the senders of both nodes are in the idle state.

12. A system according to Claim 11, further comprising means for putting the senders of both nodes into a resend state after both nodes are in said same defined state.

13. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform an error recovery method, and for use with a communication system having first and second nodes, each of said nodes having a receiver

and a sender, the sender of the first node being connected to the receiver of the second node by a first cable, and the sender of the second node being connected to the receiver of the first node by a second cable, said error recovery method comprising the steps:

after one of the nodes detects an error, both of the nodes entering the same defined state, including the steps of

the receiver of the first node entering an error state, staying in the error state for a defined period of time T, and, after said defined period of time T, entering a wait state, and

the sender of the first node sending to the receiver of the second node an error message for a defined period of time  $T_e$ , and after the defined period of time  $T_e$ , entering an idle state.

14. A program storage device according to Claim 13, wherein the step of the sender of the first node entering the idle state includes the step of

the sender of the first node sending an idle signal to the receiver of the second node for a period of time  $T_i$ .

15. A program storage device according to Claim 14, wherein  $T_i$  is greater than  $T_e$ .

16. A program storage device according to Claim 13, wherein said error includes said one of the nodes receiving the error message from the other of the nodes.

17. A program storage device according to Claim 13, wherein in said same defined state, the receivers of both nodes are in the wait state, and the senders of both nodes are in the idle state.

18. A program storage device according to Claim 17, wherein said method further comprises the step of, after both nodes are in said same defined state, the senders of both nodes entering a resend state.